

REMARKS/ARGUMENTS

Claims 1-17 are pending in the instant application. In response to the Office Action, Applicant has amended claim 1 and cancelled claim 14. Applicant respectfully asserts that all amendments are properly based on the specification and earnestly request their entry.

Priority

The instant application is a 371 of PCT/GB00/00807, filed March 9, 2000. The application also claims benefit of application number 9905807.5 filed in Great Britain on March 12, 1999. Applicant thanks the Examiner for her acknowledgement of Applicant's claim for priority of the PCT and foreign applications.

The Examiner noted, "applicant has not filed a certified copy of the 9905807.5 application as required by 35 U.S.C. 119(b)." Further, the Examiner states, "the instant application appears to contain a foreign document, however the document does not appear to be 9905807.5." Applicant regrets the error made by WIPO in providing the wrong priority document. Applicant hereby provides a certified copy of the 9905807.5 application. Applicant respectfully requests reconsideration and grant of priority based on the March 12, 1999 filing date of the application number 9905807.5.

Claim Objections

Claim 14 has been objected to as being improper because it “appears to contain the same limitations of Claim 1d”. Applicant has cancelled claim 14. Therefore, the objection no longer applies.

Claim Rejections – 35 U.S.C. § 112

Claims 1-17 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the Examiner states, “Claims 1-17 are indefinite over the recitation ‘providing the nucleic acids from two sources as labeled probes wherein the nucleic acids from two sources are labeled with two different markers.’” The Examiner believes that this makes it “unclear whether each of the two sources comprise two different labels, whether each sample comprises a label or whether each sample comprises the same two different labels.” In response, Applicant has amended claim 1 to clearly state that “the nucleic acids from each source are labeled with a distinct marker”, therefore, each sample comprises a distinct label and there are a total of two labels.

Additionally, the Examiner states, "Step b, of Claim 1, is unclear because it is unclear whether two reagents are required such that at least two distinguishable beads are required." Applicant respectfully disagrees. Applicant believes that the language "pooled reagents" in step b of claim 1 is clear and states that there are at least two reagents. However, in an effort to advance the prosecution, Applicant has amended step b of claim 1 to require at least two reagents. Support for this amendment can be found in Figures 2, 3 and 4, as well as in related text. No new matter is introduced.

Claim Rejections – 35 U.S.C. § 102

Claims 1-3 and 6-17 are rejected under 35 U.S.C. § 102(e) as being anticipated by Beattie et al. (US 6,268,147). The rejection was based entirely on Example 18 of Beattie et al. Applicant respectfully traverses this rejection.

It is Applicant's understanding that "for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly" (MPEP, 706.02). Applicant respectfully submits that Beattie et al. clearly does not include each and every limitation of the claims of the present invention. Furthermore, Beattie et al. fails to disclose, teach, or suggest the present invention. Beattie et al. describes a method for nucleic acid analysis using tandem hybridization on color-coded microspheres and flow cytometric detection (Example 18, columns 38 – 40, Figure 15A and 15B). The method of Beattie et al. requires hybridization of three molecules, (a) a

labeled stacking probe, (b) a probe on the bead, and (c) a nucleic acid to be analyzed. The labeled stacking probe hybridizes in tandem with the probe on the bead to the nucleic acid molecules being analyzed. The hybridization product of the three molecules is then analyzed by flow cytometry (Figure 15A and 15B).

In contrast, in the current invention by the Applicant, the nucleic acid samples being analyzed are labeled, and no separate, labeled stacking probe is needed for the flow cytometry detection to occur. Applicant directs the Examiner's attention to Figures 2, 3 and 4 of the instant application, as well as to Applicant's description that "mRNAs or cDNAs prepared from control and test cells or tissues are labeled with fluorescent tags to identify their source" (page 4, lines 20-21). The current invention is therefore distinct from Beattie et al. The rejection is improper and should be withdrawn.

Claims 1-7 and 13-15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kamb et al. (WO 98/26098). It appears that this rejection is based on the Examiner's interpretation that "the claims do not appear to require two sets of beads which are distinguishable. The claim only appears to require that if there are two pooled reagents, they are distinguishable." Applicant respectfully traverses this rejection.

As stated above, Applicant respectfully disagrees with the Examiner on the interpretation of the claim language. Applicant believes that the language "pooled reagents" in step b of claim 1 is clear and states that there are at least two reagents. However, in an effort to advance the prosecution, Applicant has amended step b of claim 1 to require at least two reagents. Support for this amendment can be found in figures 2, 3

and 4, as well as related text. No new matter is introduced. Applicant believes that this clarification distinguishes the currently claimed invention from the teachings of Kamb et al. Applicant respectfully requests that this rejection be withdrawn.

Claim Rejections – 35 U.S.C. § 103

The last remaining issue is whether Applicant's claim 5 is rendered obvious over Beattie et al. in view of Cocuzza et al. (US 5,484,701), and thus are not allowable under 35 U.S.C. § 103.

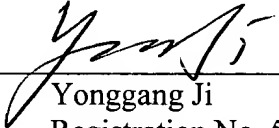
Applicant believes that the asserted references do not render obvious the Applicant's claim. As stated above, there is a fundamental difference between the current invention and that of Beattie et al. Briefly, while the method of Beattie et al. requires hybridization of three nucleic acid molecules while methods of the currently claimed invention do not require the presence of a labeled stacking primer. As such, even if the references are combined, this combination does not render obvious Applicant's claim 5.

In view of the amendments and remarks hereinabove, Applicant respectfully submits that claims 1-13 and 15-17 of the present application are in condition for allowance.

Early and favorable action thereon is respectfully requested.

Respectfully submitted,

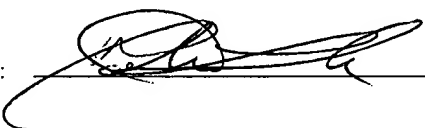
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